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PROPOSED PROGRAMME BUDGET FOR THE BIENNIUM 1992-1993

Administrative and financial arrangements for the 1994 International Conference on Population and Development

Note by the Secretary-General

I. BACKGROUND

1. The proposed programme budget for the biennium 1992-1993, 1/ section 13 (Department of International Economic and Social Affairs), contains a provision of $1,432,300 (at revised 1991 rates) for the preparatory arrangements for the 1994 International Conference on Population and Development. When reviewing this section, the Advisory Committee on Administrative and Budgetary Questions (ACABQ) recalled Economic and Social Council resolution 1989/91 requesting the Secretary-General to take appropriate measures to obtain resources for the international meeting on population and recommended the provisional deletion of such a provision. ACABQ then stated that until such time as the Secretary-General was able to present to the Committee a more complete indication of the total availability of funds, source of funding and the role of the other agencies and organizations of the system, the preparatory work for the Conference should be carried out from within the available resources.

2. The holding of the 1994 International Conference on Population and Development (called at that time the International Meeting on Population) was decided in principle by the Economic and Social Council in its resolution 1989/91. By the same resolution, the Council adopted the objectives of the Conference and approved the guidelines for its preparation. The Population Commission has been designated as the preparatory committee for the Conference. At its second regular session of 1991, the Economic and Social Council considered the report of the Secretary-General on activities to be

undertaken in preparation for a 1994 International Conference (E/1991/5), which outlined the nature of the preparatory work, including the convening of expert group meetings to address the issues recommended by the Population Commission, the regional meetings, the role of organizations of the United Nations system and organizational arrangements, and the report of the Population Commission acting as the Preparatory Committee for the 1994 International Meeting on Population (E/1991/47). The Council was apprised of the programme budget implications of draft resolution E/1991/47/Add.1, which outlined the estimated costs for the preparation and the holding of the Conference to be financed from both regular budget and extrabudgetary resources. By its resolution 1991/93, the Council took note of the report of the Secretary-General and, inter alia, requested the Secretary-General of the Conference to make full use of the existing resources of all units of the United Nations sytem, in particular the Department of International Economic and Social Affairs and the United Nations Population Fund (UNFPA).

II. ESTIMATED RESOURCE REQUIREMENTS AND STATUS OF FUNDING

3. Overall requirements for the preparation and holding of the Conference have been estimated in the statement of programme budget implications mentioned above at $5,651,000 (at revised 1991 rates), including conference-servicing requirements of $2,650,300 (see annex). Of this total estimate, the 1992-1993 portion would be $1,362,700 for conference-servicing activities and $1,990,700 for substantive activities.

4. Requirements for conference servicing of the preparatory process during the biennium 1992-1993 would be accommodated from within the provisions requested under section 32, Department of Conference Services.

5. The substantive activities would be financed from both regular and extrabudgetary funds. The regular budget portion of $1,432,300 has been provided for under section 13 of the proposed programme budget for the biennium 1992-1993, broken down as follows:

		$ (at revised 1991 rates)
(a)	General temporary assistance (equivalent to 24 work-months of each one D-1 and one P-3 post and two General Service (other level) posts	472 300
(b)	Consultants	75 800
(c)	Six expert group meetings	638 700

(d)	Travel (for staff to participate in meetings related to the Conference, consultations with Governments, international and non-governmental organizations)	109 100
(e)	Travel for staff of regional commissions to participate in conference-related activities	136 400
	Total	1 432 300

6. The extrabudgetary portion, estimated at $558,400, would include the following components:

(a)	General temporary assistance (equivalent to 12 work-months of a post at D-1 level, 24 work-months at P-4 level, and 48 work-months of two General Service (other level) posts)	434 200
(b)	Consultancy	124 200
	Total	558 400

7. In response to the request by the Economic and Social Council in its resolution 1989/91, the Secretary-General has established the Trust Fund for the 1994 International Conference on Population and Development, which would be a primary source of financing of the preparatory activities from extrabudgetary resources. Another trust fund, namely Voluntary Fund for Supporting Developing Countries' Participation in the 1994 International Conference on Population and Development, has been established in order to facilitate the participation of developing countries, in particular the least developed countries, in the preparatory process and the Conference itself.

8. The Secretary-General of the Conference is currently undertaking fund-raising activities for both trust funds. At the time of preparation of the present report, a contribution in the amount of $250,000 had been received for the Trust Fund for the 1994 International Conference on Population and Development. Another contribution in the amount of $500,000 had been pledged for the same Trust Fund. Other contributions are expected.

III. ROLE OF ORGANIZATIONS OF THE UNITED NATIONS SYSTEM IN THE PREPARATIONS FOR THE CONFERENCE

9. The Department of International Economic and Social Affairs will have primary responsibility for the substantive preparation for the Conference and for undertaking related activities, including the enlisting of substantive contributions into the preparatory process from the Department of Technical Cooperation for Development, the regional commissions and organizations of the

United Nations system. UNFPA will be responsible for the overall organizational preparations for the Conference, including the search for financial resources and the coordination of public information activities in collaboration with the Department of Public Information. The contributions of various departments and units within the United Nations to the preparatory process of the Conference are being coordinated by a Steering Committee established in September 1991 by the Director-General for Development and International Cooperation.

10. In accordance with the approved programme of preparatory activities, the regional commissions will be organizing regional meetings. The costs relating to those meetings, including expert group meetings, preparation of working documents and assistance to participants from developing countries, to be determined in consultation with UNFPA will be covered by UNFPA funds. The proposed resource requirements for those activities will not fall under the provisions of the two trust funds mentioned in paragraph 7 above.

11. With regard to the role of other organizations of the United Nations system, the Economic and Social Council, in its resolution 1991/93, requested the Secretary-General of the Conference to make use of the substantive contribution of all organs, organizations and bodies of the United Nations system concerned, as well as of intergovernmental and non-governmental organizations, in the preparatory activities for the Conference. The Secretary-General of the Conference has recently informed organizations of the United Nations system concerned of the 1994 Conference and the proposed preparatory activities and has asked them to establish focal points within their organizations for activities related to the Conference. At the request of the Secretary-General of the Conference, the Administrative Committee on Coordination established in October 1991 an ad hoc task force on the 1994 Conference on Population and Development which would coordinate inputs from various agencies and organizations to the preparation of the Conference.

Notes

1/ Official Records of the General Assembly, Forty-sixth Session, Supplement No. 6 (A/46/6).

Annex

ESTIMATED RESOURCE REQUIREMENTS FOR THE PREPARATION AND THE HOLDING OF THE 1994 INTERNATIONAL CONFERENCE ON POPULATION AND DEVELOPMENT

(In United States dollars)

	1992-1993			
	RB	XB	1994	Total
A. Temporary assistance requirements	472 300	434 200	410 300	1 316 800
B. Consultancy	75 800	124 200	-	200 000
C. Expert group meetings (travel and subsistence of 15 experts to each of six meetings)	638 700	-	-	638 700
D. Travel costs:				
1. Travel and subsistence costs for staff for participation in meetings related to the Conference, consultations with Governments, international organizations and non-governmental organizations	109 100	-	15 000	124 100
2. Travel and subsistence costs for staff of regional commissions to participate in the conference-related activities	136 400	-	55 900	192 300
3. Travel of Population Commission members to the third session of the Preparatory Committee	-	-	50 400	50 400
4. Travel and subsistence costs for 12 experts as resource persons for the Conference	-	-	78 400	78 400
E. Public information activities:				
1. Journalists' encounter	-	-	130 000	130 000
2. Documentation	-	-	150 000	150 000
3. Series of briefing papers	-	-	60 000	60 000
4. Posters and information brochures	-	-	60 000	60 000
Subtotal (A-E)	1 432 300	558 400	1 010 000	3 000 700

	1992-1993 RB	1992-1993 XB	1994	Total
F. Conference-servicing costs:				
1. Expert group meetings	800 400	-	-	800 400
2. Regional meetings	562 300	-	-	562 300
3. Third session of the Preparatory Committee	-	-	462 600	462 600
4. International Conference on Population and Development	-	-	825 000	825 000
Subtotal F	1 362 700	-	1 287 600	2 650 300
Total	2 795 000	558 400	2 297 600	5 651 000

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PROPOSED PROGRAMME BUDGET FOR THE BIENNIUM 1992-1993

Optical disk storage and retrieval system

Report of the Secretary-General

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I. BACKGROUND

1. At its forty-fifth session, the General Assembly decided, in section XIV of its resolution 45/248 of 21 December 1990, to defer until its forty-sixth session consideration of the report of the Secretary-General on the optical disk storage and retrieval system for the United Nations (A/C.5/45/58). In the same resolution, the Assembly:

(a) Requested the Secretariat to carry out consultations with the permanent missions in order to determine the appropriateness of making the system compatible with those of permanent missions and to report thereon to the General Assembly at its forty-sixth session;

(b) Empowered the Advisory Committee on Administrative and Budgetary Questions to authorize the Secretary-General to enter into commitments for additonal requirements necessary for 1991, on the understanding that such appropriations as may be necessary for 1991 would have first call on the contingency fund of the programme budget for the biennium 1990-1991 at the forty-sixth session.

2. The present report is intended to supplement the report submitted to the General Assembly at its forty-fifth session and to inform the Assembly of action taken in compliance with the above resolution.

II. STATUS OF IMPLEMENTATION

3. Implementation of phase I of the optical disk project has begun. Following a process of international competitive bidding, the joint proposal submitted by Sarde/Digital Equipment Corporation for the first phase of the project to establish an optical disk system for the storage and retrieval of documentation was found to be the lowest cost technically acceptable proposal. Detailed technical specifications have been drawn up and the initial work to establish the system at Geneva is under way. It is expected that an operational system both at Geneva and in New York will be established by the end of the first quarter of 1992. During the 1992-1993 biennium the system will be expanded to include additional Secretariat and remote users at both duty stations. Further expansion of the system to other conference centres, including Vienna and the regional commissions, is planned for the 1994-1995 biennium.

4. A survey of permanent missions to the United Nations in New York, undertaken in February 1991, elicited 62 responses, all expressing interest in participating in the optical disk system; 52 of the respondents had computers (most of which were IBM compatible personal computers using DOS operating systems and WordPerfect or Wang word processing software and linked to laser printers). The system as designed would be compatible with these computers. Asked what they considered to be the most important use of the system, 32 respondents cited its use as a full text reference database for United Nations documents, 12 considered the most important use to be as a source of text for

preparing internal papers and 8 cited its use as a replacement for some or all of the printed documents now received.

III. DESCRIPTION OF THE SYSTEM

5. As stated in the report of the Secretary-General to the General Assembly at its forty-fifth session, the project is intended to establish a fully operational system for:

(a) The storage of United Nations parliamentary documents on optical disk as coded text or image-based documents;

(b) The on-line retrieval of such documents by local and remote computer work-stations for display on screen or for printout;

(c) The high-speed transmission of such documents to United Nations duty stations, offices and missions of Member States and other users world-wide.

6. Implementation of the project is proceeding as described in the report of the Secretary-General, although the rate of progress has been somewhat slower than anticipated. The installation of the fully operational system at the United Nations Office at Geneva and at Headquarters, New York, is now expected to be completed by the end of the first quarter of 1992. Both systems will have the capability to store and retrieve parliamentary documents produced in New York and at Geneva. Documents produced at one location will be transferred electronically to the optical disk in the other on a regular basis. The number of users connected to each system will increase gradually during 1992 and 1993, first at Geneva and then in New York. The pace of expansion in New York will be largely dependent upon the proposed implementation of a wiring and networking plan for the Headquarters complex of buildings.

A. Phase I

7. The system to be established in phase I of the project was described in paragraphs 7 and 8 of the report of the Secretary-General to the General Assembly at its forty-fifth session. A brief description of the equipment to be installed at each location is provided below:

(a) Document servers:

(i) There will be identical document servers at Geneva and in New York to manage the optical disks, the document conversion process, the database of stored documents, and the local area network; such servers will use the UNIX operating system;

(ii) There will also be identical optical disk subsystems in each location, comprising two optical disk drives each with a capacity for one 4.5 GB/side optical disk, four double-sided 4.5 GB/side optical disks (two back-up disks) and document management software;

(b) Input workstations. Identical equipment and software will be used in Geneva and New York to store documents in the system: one input workstation and software at each location to transfer documents in their original word processing format to the document server (except documents in Chinese, which must be scanned to be available to retrieval workstations), to convert the documents for storage as standard revisable texts using an international standard Office Document Architecture/Office Document Interchange Format (ODA/ODIF), and to archive and index the documents. It should be noted that only a very limited number of inputting workstations will be needed, since most of the documents will be transferred directly and electronically from the installed text-processing systems;

(c) Retrieval workstations. At Geneva 15 local retrieval workstations will be established and provision will be made for up to 30 remote retrieval workstations. In New York in the first phase of the project, there will be only one local retrieval workstation and no provision for remote retrieval workstations. The two systems will be connected to each other through telecommunications links so that documents stored at one location can be copied and transferred overnight to storage at the other location; the document databases at both locations will therefore contain all documents processed at either location. A telecommunications and users needs study to be carried out during the fourth quarter of 1991 as part of the activities of phase I will assist in the determination of the exact network configurations for both local and remote users at Geneva and in New York. This study will be carried out in accordance with established networking and wiring policies at Headquarters and the United Nations Office at Geneva. It will be closely coordinated with the ongoing wiring projects at both locations and will be carried out in appropriate consultation with the Office of General Services and the United Nations Office at Geneva. It is anticipated that the networking and wiring projects under way at both sites will accord some priority to the requirements of the optical disk project during the first months of 1992.

8. The parliamentary documentation, stored on line in databases at United Nations Headquarters, New York, and the United Nations Office at Geneva and described/indexed using the structure of the United Nations Bibliographic Information System (UNBIS), will include pre-session, in-session and post-session documentation for meetings and conferences of the Security Council, the General Assembly and its subsidiary bodies, the Economic and Social Council and its subsidiary bodies and the Trusteeship Council. The documents will be stored in all official languages of the United Nations: Arabic, Chinese, English, French, Russian and Spanish. Documents will be stored to the greatest extent possible in coded form not only to reduce storage space requirements on the optical disk and accelerate transmission of documents through available communications lines but also to permit editors, translators and typists to reprocess texts retrieved from storage. It is estimated that at about 1 million standard pages will be stored each year, and a total of 2 million pages will be stored online in the first phase of the project; in subsequent phases 2 million pages will be stored online and additional pages will be stored in "jukeboxes" both at Geneva and in New

York. The material stored in jukeboxes will also be available online, but with somewhat slower response time.

9. The optical disk system as proposed by the vendor in accordance with the specifications of the request for proposals is an "open" system. It will be accessible to users regardless of their individual choice of computer or text processing software so long as the necessary technical specifications are met. Instead of being stored in a particular text-processing format, all documents will be stored in a format compatible with the international ODA/ODIF standard for document exchange. This not only has the benefit of making documents accessible to users in a multivendor environment, it avoids problems that might arise as a result of changes in particular text-processing software or a decision on the part of the United Nations to shift from one software package to another.

10. The system is compatible with international standards for telecommunications established by the Consultative Committee on International Telegraphy and Telephony (CCITT) of the International Telecommunication Union (ITU) and the International Organization for Standardization (ISO) and is consistent with the long-term telecommunications strategy being developed by the United Nations. It is also compatible with the Integrated Management Information System (IMIS) project, which is also based upon the UNIX operating system. While any delay in project implementation is generally regrettable, in the case of the optical disk project, the time required for the preparation of detailed specifications and the selection of a vendor through international competitive bidding covered a period during which important decisions were made concerning the telecommunications and IMIS projects and thus provided the opportunity to ensure that all three projects were compatible with each other.

11. As has been mentioned in earlier reports, there is a fairly rapid rate of development as regards the technology related to optical disk storage and retrieval systems; during the past year, operating characteristics and capacities of equipment have improved and costs have remained stable or even decreased. For example, the optical disk drives and platters now to be used in the system have a capacity that is 50 per cent greater than the capacity of the equipment originally envisaged. The 20 per cent higher costs of such equipment are offset not only by the proportionately greater increase in capacity but also the decreased costs of other components of the system, such as monitors and printers. Therefore the project as now being implemented is better in many respects than the project envisaged in the report to the General Assembly at its forty-fifth session with no increase in costs.

B. Phase II, 1992-1993

12. Once fully operational systems have been installed, tested and accepted at Geneva and in New York, the second phase of the project will be to extend the system to service a greater number of Secretariat and remote users at Geneva and in New York. The expansion of the system in New York will use the wiring and networking infrastructure that is proposed in the 1992-1993 programme budget. In addition, the storage capacity of the optical disk

system will be increased through the acquisition of two jukeboxes, one for New York and one for Geneva, each with the capacity to hold multiple 4.5 GB double-sided disks. To the extent permitted by available staff resources, documents issued in the 1990-1991 biennium will retroactively be stored on the system during 1992-1993 and, if necessary, during 1994-1995 in order to establish a database with documents issued during the most recent five year period. Full text indexing capability may be added during this phase, depending upon user requirements. It is also planned to integrate the Document Records, Information and Tracking System (DRITS) with the optical disk system to avoid duplication of data entry and document indexing effort.

13. The retroactive storage of documents issued since the establishment of the United Nations is a more complicated task that will require further study during 1992-1993. Most of these documents are not available in electronic form and many of them have not been indexed using UNBIS. Storage on optical disk in a format that would permit retrieval and further processing might not offer sufficient advantages in the case of texts required primarily for archival purposes, and other forms of electronic storage might be more advantageous.

C. Phase III, 1994-1995

14. In the third phase of the project, the system will be expanded to include the United Nations Office at Vienna, the regional commissions, Nairobi and other selected United Nations duty stations, and to provide world-wide access through public networks to Member States and other users of United Nations parliamentary documents. Parliamentary documentation produced by United Nations bodies at Vienna will be stored in the optical disk databases at New York and Geneva.

IV. COSTS OF THE PROPOSED SYSTEM

15. Although the General Assembly decided at its forty-fifth session to defer consideration of the report of the Secretary-General on the optical disk storage and retrieval system, it also empowered the Advisory Committee on Administrative and Budgetary Questions to authorize the Secretary-General to enter into commitments for additional requirements necessary for 1991. The total cost of phase I of the optical disk project in 1990-1991 was estimated at $1.2 million, with $800,000 to be made available through redeployment and extrabudgetary accounts and $400,000 estimated as additional requirements. On 21 December, the Chairman of the Advisory Committee informed the Secretary-General that the Advisory Committee concurred in his entering into commitments in an amount not exceeding $400,000 for the purposes indicated in his report. Accordingly, the total amount of $1.2 million was earmarked for phase I of the project to be carried out on a "turn-key" basis. The full amount earmarked will not be required for 1990-1991, however. Expenditures in 1991 will be limited to $993,636, the cost of the contract awarded on the basis of acceptance of the lowest cost technically acceptable proposal and

will cover all aspects of the establishment of operational systems at Geneva and in New York. Accordingly, it is anticipated that an additional appropriation of $193,636 will be requested in the context of the second performance report.

16. In the programme budget proposals for the biennium 1992-1993, a provisional estimate of $1,886,900 ($2,029,900 at 1992-1993 rates) was included in paragraphs 32.24 and 32.25 to cover expansion of the storage capacity at both locations for an additional 2.2 million pages of documents and an increase in the processing capacity of the optical disk servers to provide access to 70 additional users in Geneva and 250 additional users in New York - departments and offices within the Secretariat as well as missions of Member States in New York and at Geneva - as well as to provide for associated hardware and software maintenance and facilities management services, which it was estimated would be required from the first quarter of 1992 onwards.

17. The costs of facilities management and maintenance service, are now known and are higher than anticipated. It will not be possible to provide access to the number of users originally foreseen. It is now proposed that the allocation requested in the 1992-1993 budget submission be used as follows:

	$
Facilities management	740 000
Maintenance of equipment	226 900
Acquisition of equipment:	
(a) Additional optical disk storage devices	200 000
(b) Upgrading of document server by adding main memory, disk storage for the expansion of the index database, additional local area network server and ISDN server capacity for 70 additional users at Geneva and 90 additional users in New York	320 000
(c) Upgrading existing workstations for 80 users in the Department of Conference Services at Geneva and in New York	400 000
Total	1 886 900

18. The Advisory Committee, in paragraph 32.15 of its first report on the proposed programme budget for the biennium 1992-1993, 1/ recommended that the estimate of $1,381,000 for phase II ($1,487,400 at 1992-1993 rates) be reduced by $381,000 to $1,000,000 (a reduction of $410,300 at 1992-1993 rates) in view of the fact that completion of phase I of the project would be delayed. While the project has indeed been delayed, the delay has not affected resource requirements for 1992-1993. The requirements for facilities management and for maintenance remain unchanged, as does the requirement to store an additional 1 million pages of documentation each year. The equipment costs for storing 1 million pages on optical disk storage devices are roughly $50,000 (or 5 cents a page) for each location, New York and Geneva. The higher than estimated costs of maintenance and facilities management will already reduce the number of additional users to be given access to the system in 1992-1993. Should the reductions recommended by the Advisory Committee be approved, this would entail elimination of the provision for upgrading workstations to expand the number of internal users beyond the number of referred to in paragraph 7 (c) above.

19. Further expansion of the storage capacity to cover the growth of the documents database on optical disk will be requested for phase III beginning in 1994. It is estimated that about 1 million pages of documents will be produced each year. It is also expected that the total number of users will increase to 1,300 for the New York site and 600 for the Geneva site by the end of 1995. Users from Vienna, Nairobi and the regional commissions will be accommodated through the upgraded United Nations telecommunications network; however, Vienna and some of other duty stations may require additional inputting workstations for documents produced at those locations. For cost estimation purposes in calculating the required capacity of the document servers, it is assumed that the system must be able to service simultaneously one third of all authorized users at any given time. While maintenance costs will increase as new equipment is installed, the annual costs of facilities management are expected to remain the same, since the technical staff that carry out facilities management in 1992-1993 are expected to be able to cope with the additional equipment in 1994-1995.

20. With these assumptions, total expenditures for 1994-1995 are projected at about $6.1 million, allocated as follows (at 1991 rates):

	$
Facilities management	740 000
Maintenance of equipment	500 000
Acquisition of equipment:	
(a) Jukeboxes for Geneva and New York	132 000
(b) High-speed document printing systems for Geneva and New York	400 000

		$
(c)	Addition of document servers and communications servers to accommodate 1,600 additional users at all conference centres	3 320 000
(d)	Upgrading existing workstations for 200 users in the Department of Conference Services at Geneva and in New York	1 000 000
	Total	6 092 000

21. By the end of 1995, the equipment acquisition cost for the total system would come to about $6.8 million: $1 million for the initial system and $5.8 million for the expansion of the server systems in New York and at Geneva to cover 1,900 authorized users worldwide, to provide jukeboxes for the storage of about 6 million pages of documents produced during the period 1990-1995, to acquire high-speed printers linked to the system for printing documents on demand, and to upgrade existing workstations for users in the Department of Conference Services. Annual maintenance costs for this equipment are estimated to stabilize at about 10 per cent of acquisition costs, and the annual cost of facilities management services is estimated at $372,000. Ongoing annual costs for the system are therefore estimated at slightly more than $1 million after 1995.

22. An important requirement for the design of the optical disk system was its compatibility with existing user workstations equipment. Users will be able to retrieve documents on their standard IBM-compatible personal computer workstations. The minimum configuration for such a workstation would be a personal computer with a 386 SX processor, a VGA monitor, a laser printer, a modem for telecommunications and appropriate software (DOS, Windows, WordPerfect or other text-processing software and the optical disk workstation software). The total cost for such a retrieval workstation is approximately $5,000. A maximum configuration that would provide increased retrieval and printing speed and would be able to display and print high quality images of documents would cost approximately $10,000. It consists of an IBM compatible personal computer with a 386 processor, a full page high resolution monitor, a laser printer, a special graphics printer interface, a modem or ISDN board for communications, and appropriate software as listed above. Site licences for the optical disk workstation software will cost about $1,000.

23. The estimated costs of the project include only the cost of the additional hardware and software necessary for users in the Department of Conference Services to convert a standard personal computer workstation with printer to a retrieval workstation for the optical disk project. No funds are included in the project to cover acquisition of the basic computer configuration required; such equipment acquisition costs must be borne by

users, in the Department of Conference Services or elsewhere, since the computer will be used for a variety of purposes other than accessing the optical disk database. Users outside the Department must also make their own provisions to cover the costs of the upgrading of hardware and software required for access to the optical disk system.

V. BENEFITS OF THE SYSTEM

24. The benefits expected from the establishment of the optical disk system have been described in paragraphs 12 to 27 of the report of the Secretary-General to the General Assembly at its forty-fifth session. They include more timely access to the full text of parliamentary documents produced at Geneva or in New York, reduced requirements for paper documents, a well-indexed full-text database, and more secure and economical storage of archival material, thus preserving the institutional memory of the Organization. In addition, the system, once fully operational, offers the possibility for generating revenues for the Organization through the sale of series of documents either in the form of optical disks or CD/ROMs. These benefits are expected to accrue as the system expands rather than to be reflected immediately in phase I of the establishment of the system.

25. The system is expected initially to bring benefits through the enhancement of quality and timeliness of services provided rather than a reduction of staff or other costs. In the period to the end of 1993 only a limited number of translators and editors will have retrieval workstations with access to the optical disk database of documents, so the immediate benefits will be to reduce the time required by reference and terminology units to obtain full texts of parliamentary documents recently issued and to enhance the quality of referencing by facilitating the search for and retrieval of such documents, thus making referencing more complete.

26. Similarly, the very limited number of internal and external users with access to the system is not expected to bring a significant reduction in the request for printed documents, therefore no reduction in the costs of printing or distributing parliamentary documents or in requirements for storage space is anticipated in the biennium 1990-1991 and 1992-1993. For the medium and longer term, however, such savings are anticipated. The United Nations Office at Geneva intends, shortly after the introduction of the operational optical disk system, to discontinue the printing of a certain number of copies of documents for stock and instead to satisfy secondary distribution needs by printing on demand. Contacts with permanent missions at Geneva suggest that most will reduce their requests for printed copies of documents from the time they have access to the optical disk system. In the long run, savings from the reduction of press runs and storage requirements is expected to more than offset the cost of the system at Geneva.

27. Another immediate benefit expected once the system is in full operation is a more efficient method of archiving documents in the text processing pools. At present, the text processing units in the Secretariat archive each

document on magnetic media once it has been completed. Manual index records must be kept and the process of searching and recovery of documents is cumbersome and labour-intensive. The optical disk system will replace this archiving process. Without the optical disk system, additional funds would have been needed to expand the archiving capabilities of the text processing units to cope with the ever increasing volume of documents.

28. A further immediate benefit is that parliamentary documents stored in the optical disk database will be much more accessible than documents now stored in paper form or in microfiche, since the storage will be linked to an indexing system based on the elements of UNBIS, making it much easier and faster to search for and find documents on a particular topic of interest. It will also be much easier and faster to transmit such documents (in electronic form) to remote locations. As the text database in the optical disk system grows, possiblities will open up to generate specific collections of documents dealing with topical subjects on magnetic or optical media for the general public as a revenue producing activity.

29. While it is difficult to quantify the value of having parliamentary documents produced at one United Nations duty station almost instantly available to internal and external users throughout the world, it seems clear that there is a value to such timely availability of documents. It also seems clear that there is a value to the greater accessibility of parliamentary documents that will result from systematic indexing and storage of full texts on optical disk. Member States are likely to benefit most from such accessibility, since their need to maintain their own reference collections of United Nations documents will be reduced. The value of such databases of electronic documents has been demonstrated by the success of commercial firms in marketing subscriptions to full text databases of published materials.

Notes

1/ Official Records of the General Assembly, Forty-sixth Session, Supplement No. 7 (A/46/7).